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NASA - JPL
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REMEDIAL PROJECT MANAGERS' MEETING

NASA/JET PROPULSION LABORATORY

18 May 2000

ATTENDEES:

Richard Atwater, Bookman-Edmonston Eng.

Charles L. Buri, JPL

Alex Carlos, RWQCB-LA

Mark Cutler, Foster Wheeler

Phebe Davol, TechLaw

Richard Gebert, DTSC

Vittal Hosangadi, Foster Wheeler

Tim Howell, NASA Legal

Mark Losi, Foster Wheeler

Judith A. Novelly, JPL

B. G. Randolph, Foster Wheeler

Mark Ripperda, USA EPA

Peter Robles, Jr., NASA

Richard J. Zuromski, Navy/NASA

Reported by: Lester R. Linn, Jr., CSR 1054

1 Pasadena, California
 2 May 18, 2000
 3 9:37 A.M.
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 5 ROBLES: Why don't we go around the room and
 6 introduce ourselves. Starting with:
 7 Cutler: Mark Cutler with Foster Wheeler.
 8 GEBERT: Richard Gebert of DTSC.
 9 RIPPERDA: Mark Ripperda with EPA.
 10 RANDOLPH: B.G. Randolph, Foster Wheeler.
 11 ROBLES: Peter Robles with NASA.
 12 HOWELL: I'm Tim Howell. I'm the new counsel for
 13 the NASA Management Office.
 14 ZUROMSKI: Richard Zuromski, Jr. With the Navy.
 15 CARLOS: Alex Carlos, Regional Board.
 16 BURIL: Chuck Buril, JPL.
 17 NOVELLY: Judy Novelly, JPL.
 18 LOSI: Mark Losi, Foster Wheeler.
 19 HOSANGADI: Vittal Hosangadi, Foster Wheeler.
 20 ROBLES: Okay. We've got an agenda.
 21 I want to inform all the people that we
 22 have, for Chuck's benefit, we have received a
 23 descoping letter this morning. And there will be a
 24 letter forthcoming to the JPL contracting folks to
 25 respond. That is the first item on the agenda, to

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1 notify everybody on that.
 2 Just to preface this, the NASA headquarters
 3 has deemed that it is the appropriate time to transfer
 4 day-to-day management to the Navy. Are there any
 5 concerns that the RPMs have with this change -- that
 6 what we are going to do is transfer the day-to-day
 7 management operations to the NAVFAC, which will be
 8 Richard Zuromski. He's our lead liaison officer.
 9 We're still working on what contractors to select, and
 10 so on. So we are looking at a timetable. And there's
 11 some issues later on that we need to discuss. But
 12 NASA deems that at this time it's appropriate to make
 13 the change. And there's going to be some impacts that
 14 we will have. What we're looking at is that it will
 15 be handled through the -- NAVFAC.
 16 ZUROMSKI: The transfer is going to be to NAVFAC
 17 as a whole, because NASA and NAVFAC have this
 18 memorandum of agreement, which is the reason that I'm
 19 here, and that I've been here for the last six months
 20 or so. And the contracts will all be through NAVFAC.
 21 Whether or not they're through my office at Port
 22 Hueneme or through San Diego, that's something that
 23 we're going to have to work on as far as contracting
 24 strategy goes. That's what we're starting to work on
 25 right now, is different contracting vehicles we have

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1 to take over some of this work from Cal Tech, you
 2 know. Basically we just -- we just got this letter
 3 this morning, so we're just starting this strategizing
 4 right now.
 5 CARLOS: What's NAVFAC stand for?
 6 ZUROMSKI: It's Naval Facilities Engineering
 7 Command. They're the ones who operate all the --
 8 pretty much all the bases that you deal with on a --
 9 based on what facility level.
 10 GEBERT: Are you out of the picture, then, Chuck,
 11 or what?
 12 BURIL: I don't know. I've not been told
 13 anything.
 14 ROBLES: Right. That's one of the things that Cal
 15 Tech and NASA will discuss. We would like to still
 16 see Chuck here and the group here from the standpoint
 17 that there are Cal Tech issues.
 18 We haven't fired them from the prime
 19 contract. They're still the prime contractor here.
 20 RIPPERDA: And what does that mean?
 21 ROBLES: Well, that's what we're going to have to
 22 work out.
 23 BURIL: For the purpose of this particular
 24 project, not a thing.
 25 HOWELL: That means that NASA still is the federal

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1 agency with respect to CERCLA and that our CERCLA
 2 contractor will no longer be Cal Tech. That's the
 3 only difference. We will be, through the Economy Act,
 4 using the Department of the Navy and their technical
 5 assistance and their knowledge base on CERCLA, we're
 6 using them as advisors to us, and as a result of the
 7 Economy Act we will be giving them money which they
 8 can place on their Response Action Contract, so that
 9 they will be contracting the services to work on our
 10 CERCLA program here at the site.
 11 RIPPERDA: So what does it mean, that Cal Tech is
 12 still the primary contractor?
 13 ROBLES: Oh, the primary contractor for the Lab.
 14 They're still here. That's the point. And they will
 15 be involved from the standpoint Cal Tech issues and
 16 they will be requested to be a part of the RPM
 17 meetings. But the key is that the CERCLA program will
 18 continue to be run by NASA. The day-to-day operations
 19 will now be run by the Navy contractor. Caltech be
 20 here as the need arises. Okay.
 21 RIPPERDA: What does it mean for Foster Wheeler?
 22 ROBLES: Well, that depends. The Navy has
 23 contracts with Foster Wheeler. We haven't selected
 24 the contractor yet. That's the key. That's what
 25 we're looking at right now. We're looking at this

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1 problem.
 2 How many contracts do you have on board?
 3 ZUROMSKI: A lot.
 4 ROBLES: A lot.
 5 ZUROMSKI: We have remedial action contracts with
 6 Foster Wheeler down in San Diego. We used I.T. for
 7 some of our beginning work that we did here back on
 8 the Tiger Team. We have Jacobs Engineering. We have
 9 Parsons. We have access to a lot of different
 10 contractors because -- that's the reason why if you
 11 look here we're transferring to NAVFAC because NAVFAC
 12 as a whole has contracts all over the United States,
 13 all over the world with different contractors and we
 14 could tap into whatever contracts we need. So
 15 whatever their specialty experience that we need from
 16 a certain contractor, we can get that.
 17 But that's what we're going to be working on
 18 strategizing. You'll see down here, we'll -- down in
 19 item 3.a. we'll talk about -- we have some
 20 deliverables due to NASA headquarters on cost and
 21 schedule. We're going to be basically sending you
 22 that same information once we figure out what we're
 23 going to do as well. We haven't figured it out yet.
 24 We just found out about this, so . . .
 25 ROBLES: Comments? Right now we --

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1 GEBERT: Wait and see what happens.
 2 ROBLES: Right. You know, we're trying to
 3 minimize the impact to the process. That's one of the
 4 biggest things that we're concerned about is. And I
 5 know there will be impacts and we're trying to
 6 minimize the impacts. You know, there's going to be
 7 some delays in the schedule. We want to know what
 8 those are. We got to work with JPL and Foster Wheeler
 9 on the transfer. And we don't know as yet what are
 10 the major impacts. We're trying to minimize those.
 11 Okay.
 12 GEBERT: So Richard is now going to be like the
 13 day-to-day --
 14 ROBLES: He'll be the guy.
 15 GEBERT: -- the hands-on man --
 16 ROBLES: Right.
 17 GEBERT: -- who makes things happen?
 18 ROBLES: Right.
 19 ZUROMSKI: But I'll still use Chuck to coordinate
 20 things through JPL, because they operate the facility.
 21 Cal Tech is still operating the facility and Chuck is
 22 still the environmental manager. So I still will have
 23 to -- if I need to get permits or whatever I need to
 24 do, I still need to go through him. But we'll retain
 25 control of the federal CERCLA program.

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1 ROBLES: All right.
 2 GEBERT: Hopefully it's not going to impact the
 3 schedule.
 4 ROBLES: Yes. That's what our biggest concern is.
 5 GEBERT: That's my biggest concern, too.
 6 ROBLES: That's why we want to know what are the
 7 impacts, and we want to inform you on that so we can
 8 at least start talking about those impacts.
 9 RIPPERDA: I guess NASA can certainly bring your
 10 contracts any way you want. We can't, as regulators,
 11 tell you how to do that. But I'm a little concerned
 12 about loss of institutional memory.
 13 ROBLES: Right.
 14 RIPPERDA: Cal Tech people have been hands on for
 15 years. They actually read every document in
 16 its --
 17 ROBLES: Right.
 18 RIPPERDA: -- rough draft form. You, as the RPM,
 19 are much less involved with knowing all the -- just
 20 knowing all the stuff, as well as interfacing with Cal
 21 Tech. It seems like it's hard enough to get a
 22 monitoring well or a pilot study, like a little piece
 23 of property approved. And Cal Tech people not being
 24 the contractor, it seems like there's just going to be
 25 another link in the chain that's going to make any

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1 site facility management stuff more difficult.
 2 HOWELL: Well, let's hope not. But I mean, NASA
 3 has a variety of different reasons why they wanted to
 4 make the change. And then I think that -- though I
 5 wasn't here, but they've been saying for over a year
 6 that there would be a point where they would change,
 7 would have Cal Tech transition out.
 8 There is, as you know, the potential for
 9 conflict of interest with PRPs.
 10 RIPPERDA: Yeah.
 11 HOWELL: I think they want to avoid even the
 12 appearance of that. That doesn't do either Cal Tech
 13 or NASA any advantage of having the public's
 14 attention, pointing and saying "Aw, they're in
 15 collusion." You know, I think that there was a real
 16 sense they wanted to avoid even the appearance of
 17 conflict of interest. This way at least we're keeping
 18 it in house within the federal government as far as
 19 who our advisors are and running it through their
 20 contracts. It's all within government's control and
 21 no one can say "You're not -- you got somebody doing
 22 work for you and there's a conflict." We just wanted
 23 to avoid that issue.
 24 RIPPERDA: Yeah.
 25 ROBLES: In the process what now will happen is,

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1 this office will be sending to the JPL contracting
 2 officer a descoping letter in which it will lay out
 3 what we would like to see in the transfer.
 4 HOWELL: Transition plan.
 5 ROBLES: The transition plan and so on. Also at
 6 that time -- me and Chuck have been talking, is we
 7 would like to develop a dialogue between NASA, this
 8 office, and his office so that we don't lose that
 9 corporate memory, because that's our biggest thing.
 10 And in that letter and in that descoping or
 11 phase-out plan is where we're going to look at trying
 12 to work the situations out so that we can continue the
 13 support that they have provided in one sense or the
 14 other. That all has to be worked out, because the
 15 next step is for this office is to ask for a phase-out
 16 plan.
 17 And at that time Cal Tech/JPL will come and
 18 request to still be a participant here. I fully
 19 expect that. I fully expect that we would have no
 20 problem with that. So we would continue that
 21 continuity. We're very much concerned that there's
 22 enough corporate memory in here that we don't want to
 23 lose that. So we have that same sensitivity as well.
 24 Okay? Any questions? Any comments,
 25 anybody? Okay.

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1 We have some remedial activities that we've
 2 done, as we'll discuss some of the Tiger Team results.
 3 Richard.
 4 ZUROMSKI: Sure. I know that, Mark, you received
 5 a letter from -- the cover letter from the Tiger Team
 6 report --
 7 RIPPERDA: Yes.
 8 ZUROMSKI: -- at Tim's request. I don't know if
 9 you want to speak to that. We had -- the Navy
 10 submitted the final Tiger Team report directly to the
 11 NASA general counsel here and then we'll have the
 12 attorney work product document. So I don't know if
 13 you want to talk about that. But basically, until
 14 directed by NASA, because it's now their document, I
 15 can't --
 16 HOWELL: You can tell them results.
 17 ZUROMSKI: I'm going to talk about the results.
 18 HOWELL: They made some recommendations to the
 19 government and we haven't -- they're still in a
 20 deliberative process as far as what we're evaluating
 21 as far as recommendations, and what to follow and
 22 stuff like that. So until we make our decision --
 23 we're still in the decision-making process, and that's
 24 why it was privileged. But not the technical aspects
 25 of the results and things that sometimes -- to the

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1 extent you don't need them, that you don't know.
 2 Richard can tell you --
 3 ZUROMSKI: Basically, the main result -- and Chuck
 4 was there at the meeting as well. The Tiger Team was
 5 actually composed of two Navy contractors, specialty
 6 contractors, Evan Nyer, I don't know if you know Evan
 7 from Geraghty & Miller. And Rob Scofield from
 8 Environ. He's a risk assessment expert. Two Navy
 9 technical engineers, Michael Pound. You might know
 10 Michael from the Southwest Div. Also Geoff Cullison
 11 from NAVFAC headquarters. He's the -- actually, he's
 12 with the chief Naval operations. He is the Navy
 13 representative on the perchlorate committee. And also
 14 the -- Bryan Harre of our place up at the Engineering
 15 Service Center, he's doing some research contracts for
 16 perchlorate remediation right now.
 17 So we have this team of five individuals and
 18 experts in the area. And they came up with the main
 19 recommendations, or at least the results of the Tiger
 20 Team were in line with some of the results and some of
 21 the comments that we received from the regulators,
 22 from both Mark and from Alex. The results really
 23 showed that one of the most important issues on the
 24 site right now was off-site plume containment, and
 25 especially over by the Arroyo Well. And so that was

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1 one of the main results of the Tiger Team, was the
 2 importance of getting that Arroyo Well or a well in
 3 the vicinity back on line to do some plume
 4 containment.
 5 Also, we -- as a secondary result to that,
 6 we discussed the on-site plume and discussed different
 7 options for on-site plume. However, the team thought,
 8 you know, as far as the results go, they thought that
 9 the off-site plume right now, at least containment of
 10 the plume was more -- was of prime importance over the
 11 site itself since we're impacting some of the off-site
 12 drinking water wells.
 13 So as an on-site remedy, or at least some of
 14 the -- some of the things that they talked about were
 15 different possibilities using innovative technologies
 16 for on-site plume reduction, also some type of plume
 17 containment for the site itself, but again focusing on
 18 the primary concern, the off-site well.
 19 So that really leads in right into number --
 20 letter b. here, the meeting with the City of Pasadena.
 21 Peter, Chuck and I and -- Judy, were you -- Judy
 22 wasn't there. It was just the three of us.
 23 We met with the City of Pasadena last week
 24 and discussed some of these results with them, and
 25 especially we talked about the -- the request from

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1 NASA to start discussing the possibility of getting
 2 either the Arroyo Well back on line, pumping and
 3 treating from the Arroyo Well, and/or getting our own
 4 well, a NASA-owned well, drilled in the same vicinity
 5 and screened similarly to the -- to the Arroyo Well
 6 and starting to control the off-site plume to protect
 7 the lower Well 52 and Ventura and -- which was the
 8 other well that was --
 9 ROBLES: Windsor.
 10 ZUROMSKI: Windsor Well. And so we discussed that
 11 at some length, probably about an hour and a half, two
 12 hours, with the City of Pasadena. And they also had
 13 their Hahamongna watershed folks there, planners from
 14 there. And so we discussed some pretty beneficial
 15 things that would be beneficial to both the Superfund
 16 program here as well as some of the City of Pasadena's
 17 needs. I don't know, Chuck, if you want to talk to
 18 any of that.
 19 But basically, we talked about different
 20 opportunities for either -- basically, we just started
 21 discussions. We can start -- we started discussions
 22 about do we want to put in our own well there? Do we
 23 want take over the Arroyo Well? Where a treatment
 24 plant would go.
 25 In that general area there's a large sand

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1 filtration plant that exists there right now, which is
 2 shut down and closed. We talked about using that land
 3 area for the treatment system.
 4 We talked about, also, the possibility of
 5 discharge of treated water just to new spreading
 6 basins, which also is part of the Hahamongna Watershed
 7 Park master plan.
 8 We talked about a lot of different issues,
 9 but basically it was preliminary discussions to show
 10 them that we wanted to work with them.
 11 And we're supposed to meet with them again
 12 in the next week or so, because they needed some time
 13 to digest this, because this is the first that they
 14 heard of it. So we're going to meet again to discuss
 15 some of the further possibilities for the site.
 16 ROBLES: We're directed from NASA headquarters to
 17 start to open a dialogue with the City of Pasadena.
 18 They view this as a very important issue, that we've
 19 got to do something with the Arroyo Well. And so
 20 that's what they're pushing and so that's why we
 21 started our dialogue on that.
 22 I'll let you know that NASA headquarter's is
 23 leaning to putting a NASA-owned, NASA-operated well
 24 and if we need to, build spreading basins to either
 25 spread or infiltrate, so that we will address the

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1 Arroyo Well issue. They don't want the Arroyo Well
 2 because it's old. It's collapsed, I believe, once.
 3 And they're concerned about that. They would rather
 4 sink a NASA well. And whether if in the future it's
 5 turned over back to Pasadena, that is something to
 6 consider in the future. Right now they want to be
 7 able to control the plume. So we're opening the
 8 dialogue on that and asking are there any hurdles that
 9 they see that we need to address.
 10 We also would ask you, as regulators, with
 11 the idea is just mull this over in your mind. If you
 12 see issues, please identify that to us, because we
 13 need to work through with them on that. And we want
 14 to do this very quickly as an interim removal as fast
 15 as possible. That's the message I got May 3rd.
 16 ZUROMSKI: That's what the -- at least that's what
 17 I've been directed to focus on right now is, we're
 18 going to start working on looking at this off-site
 19 plume containment trying to -- and as part of that, if
 20 you want to move down to letter c. here, we're going
 21 to do a couple of pilot tests in the next couple
 22 months, on fluidized bed reactor, which is U.S. Filter
 23 and Envirogen. They've offered to do that at no cost
 24 to the government, and also the government is looking
 25 at contracting with a contractor. We haven't really

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1 talked -- excuse me -- we've talked with -- in some
 2 general terms with Foster Wheeler about it. And I
 3 don't know if you guys have been contacted on that.
 4 Okay.
 5 It's either going to be something through
 6 Foster Wheeler or off the board through another
 7 contractor to design a pilot scale packed bed reactor
 8 to test right alongside the fluidized bed reactor,
 9 because some of the preliminary results out of the FS
 10 showed that packed bed reactor has some promising
 11 results for perchlorate treatment.
 12 So before we go with, say, just putting a
 13 Calgon treatment system on that new Arroyo Well, we
 14 wanted to get some -- at least some preliminary data
 15 on these biological systems in order to make sure that
 16 we put in the most effective system for the site,
 17 especially since if we pump at the rates proposed out
 18 of the Arroyo Well area it's going to be a lot more
 19 than the original 500 gallons per minute that we were
 20 proposing on site, so it's going to be a lot more
 21 costly. So we wanted to make sure that we had good
 22 cost data for all the available technologies before we
 23 went ahead and --
 24 RIPPERDA: So where's the pilot test going to go?
 25 ZUROMSKI: We're going to try to do that over here

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1 on MW-16 or MW-7 right where the Calgon pilot test
 2 was. We've already got U.S. Filter and Envirogen.
 3 They put -- sent us the proposal -- actually, they
 4 sent me a revised proposal and I should get it
 5 tomorrow. And they were going to be ready to go in
 6 about 30 days, but I want to -- I'm trying to
 7 coordinate the other contract right now so that we
 8 could do these side by side to kind of minimize the
 9 down time to the facility where we're going to have to
 10 put them in. Chuck and I have been discussing those
 11 as well.
 12 CARLOS: Both of these are biological treatment?
 13 ZUROMSKI: Yes. Yes.
 14 GEBERT: Are you going to do the ISEP system also?
 15 ZUROMSKI: Well, we've already done the ISEP as
 16 far as pilot test.
 17 GEBERT: This is just to --
 18 ZUROMSKI: This is kind of to do a similar test
 19 that we did -- I guess that Chuck did about a year ago
 20 on the ISEP system. Going to do almost the same kind
 21 of test, about 5 to 10 gpm to kind of get some
 22 comparable results so we can see. Because one of the
 23 things that we learned from Envirogen, U.S. Filter
 24 through the Tiger Team was that they are very good, or
 25 at least they have shown pretty promising results for

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1 treating high concentrations, high steady
 2 concentrations of perchlorate. However, this site we
 3 have a little lower concentration than they're used to
 4 treating, and they're also variable.
 5 So we want to make sure that before we count
 6 this out or before we decide to use it, that the -- it
 7 will be able to treat the concentrations that we have
 8 on the site, so we want to get some realistic data.
 9 At the same time we got some information
 10 from one of our Tiger Team contractors that said a
 11 packed bed reactor kind of like the one that they did
 12 some preliminary research on in the FS, I don't know
 13 if you saw that or not, with the University of
 14 Riverside, they show that that is also very promising
 15 for treating these kind of levels of contamination.
 16 So we figured it's best to get this kind of
 17 information now before we move to a full-scale system,
 18 and so we're going to try to do that within the next
 19 couple months and get those pilot tests done. Because
 20 in the meantime we're going to be negotiating with the
 21 City of Pasadena.
 22 (Davol entered the meeting room.)
 23 ZUROMSKI: We're going to looking at full-scale
 24 size systems and pricing those things out, looking at
 25 schedule. But we'd like to get these pilot tests done

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1 in the interim as well.
 2 So that's what we're working on as far as
 3 that -- that goes. We're also --
 4 Let me just add one last thing. On item d.,
 5 we're doing a microcosm study with Envirogen through a
 6 Navy research contract.
 7 About -- I think it was on the 26th of
 8 April, Mark Losi, myself and another person from Port
 9 Hueneme took groundwater and sediment samples from
 10 MW-7 and shipped them off to Envirogen. They're doing
 11 a 30-day microcosm study to see if we have any
 12 biological activity in the site that we can maybe do
 13 some kind of in situ work as well. So something else
 14 we're discovering. We should have those results by
 15 the end of this month, and then the report will
 16 probably come out in mid June, which is only a few
 17 weeks away, and that will show whether or not we have
 18 any means to try any types of in situ treatment or
 19 whether or not we need to do further testing using
 20 soil boring tests, whatever it be. But that was --
 21 you know, that's another thing that we're looking at
 22 as well right now. So we should have some results on
 23 that pretty soon.
 24 So those are some of the things that we're
 25 working on in the interim.

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1 ROBLES: Would you introduce yourself?
 2 DAVOL: I'm sorry. My name's Phebe Davol from
 3 TechLaw. I'm a contractor to the United States
 4 Environmental Protection Agency.
 5 ZUROMSKI: So do you guys have any comments or
 6 questions on some of those things we're doing? I know
 7 that Alex is -- do you want to say something?
 8 CARLOS: I was going to ask you what kind of
 9 schedule, for example, on the proposed pilot study,
 10 pilot (UNINTELLIGIBLE).
 11 ZUROMSKI: Well, we're probably going to do two
 12 30-day tests, or at least side by side 30-day tests.
 13 And like I said, it's going to take U.S. Filter,
 14 Envirogen 30 days to get out there and 30 days for the
 15 test once we tell them to go.
 16 But what I'm trying to do is, I'm trying to
 17 get the other contractor on board right now. And
 18 that's actually -- we're going through some
 19 contracting mechanisms to get them on board. So once
 20 that happens, it will be 60 days from once we get the
 21 contracts, probably. And that's just a rough estimate
 22 right now. I haven't really -- the person that was
 23 supposed to be here from San Diego wasn't around, was
 24 unavailable today. He's working on that contract, so
 25 I'm not really sure. I guess since Mark hasn't heard

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1 anything either, I guess I'm not really sure what he's
 2 done so far, so --
 3 RIPPERDA: So that means about 90 days from now?
 4 ZUROMSKI: Probably we'll have -- we'll be done by
 5 the -- by 90 days from now.
 6 RIPPERDA: Be done with the study?
 7 ZUROMSKI: Done with the test. Right.
 8 CUTLER: So you're anticipating like a 60-day
 9 study?
 10 ZUROMSKI: Probably a 30-day test. And it's
 11 probably going to take some time to do some
 12 preliminary design and fabrication as well.
 13 (Atwater entered the meeting room.)
 14 ZUROMSKI: So that's generally where we are with
 15 those pilot studies right now. We think that based on
 16 some of the results from the Tiger Team that doing
 17 these tests is really prudent to make sure that before
 18 we go and spend money on an ISEP system that may --
 19 we're not really sure of the results of their
 20 catalytic destruction system. We might want to make
 21 sure that we don't leave out any other options that
 22 might be better off in completely destroying the
 23 perchlorate (UNINTELLIGIBLE). We don't know if it's
 24 going to be long -- you know, as far as longevity
 25 goes.

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1 So that's generally where we are at this
 2 point with some of these remedial activities. And
 3 like I said -- I mean, I think like Peter said, I
 4 think we're planning on meeting either next -- I think
 5 next week again with the City of Pasadena to discuss
 6 in more detail the actual -- what we're going to
 7 actually do to get this type of system in line in the
 8 Arroyo Well vicinity.
 9 CARLOS: What's the reaction you received from the
 10 city?
 11 ROBLES: Very enthusiastic.
 12 ZUROMSKI: Very enthusiastic.
 13 ROBLES: Because basically, you know, we had
 14 talked with NASA headquarters and we said, "As you
 15 know, we're going to pay for this well. And if we
 16 need to," per what you guys tell us, "we need to build
 17 some spreading basins."
 18 They recommended to build these three.
 19 Because they're fully max'd out here, particularly
 20 they don't want to lose their allotment of water when
 21 it rains. So they would tell us in those times "Even
 22 though you pump, you can't put the water in there."
 23 So we would have to have our own. We were thinking of
 24 if we need to we'll build this for them, use it for
 25 us. And they were very happy to have that done.

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1 RIPPERDA: Are those things that they had
 2 proposed?
 3 ZUROMSKI: Yeah. This is a plan that they've
 4 actually had approved through the city right now.
 5 And, you know, as far as its implementation goes,
 6 they're probably several years away, at least. And so
 7 we would be doing our action a lot faster than they
 8 would be building their extra spreading basins up
 9 here. But they'd be happy because -- especially when
 10 we said that we'd already have built some of their
 11 spreading basins. We're going to be here protecting
 12 their drinking water wells. They were very
 13 enthusiastic about --
 14 ROBLES: And they even offered their defunct
 15 plant --
 16 ZUROMSKI: Right.
 17 ROBLES: -- as a site --
 18 ZUROMSKI: Right.
 19 ROBLES: -- has utilities and power and it would
 20 be out of the way. One of the big concerns they had
 21 is a plant right next to the Arroyo Well. They have
 22 no room.
 23 ZUROMSKI: Right. And we can also -- the size of
 24 the facility up here would allow us to expand it to
 25 treat -- to do any on-site plume containment as well

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1 and we could pump the water to this one large
 2 facility, kind of an economy of scale idea.
 3 So those were, again, were just some of the
 4 preliminary discussions we had with them. We're going
 5 to discuss these in more detail next week. They've
 6 had a chance to digest it for a little over a week.
 7 So we'll come back and see what they've probably
 8 discussed with their management, whoever they need to
 9 discuss with, and our discussions will move along from
 10 there.
 11 GEBERT: Has the Raymond Basin people been
 12 informed of any of the discussion?
 13 ROBLES: No. We first wanted to get with the City
 14 of Pasadena and see if they have any problems with it
 15 and what are some of the issues. One of the things we
 16 asked them is please consult with the Raymond Basin on
 17 the issues. We want a total view from them. Do they
 18 have any issues? Do they have any things that we have
 19 to jump through to make this happen? What are some of
 20 their concerns as the City of Pasadena? What are some
 21 of their concerns as the Raymond Basin, and bring that
 22 up to us.
 23 And we're also asking you, you know, what do
 24 you think about that. We're going to put this into a
 25 formal proposal so everybody can look at it. I mean,

25

1 we're not, you know, doing this on the back of an
 2 envelope.
 3 ZUROMSKI: This is kind of part of our contracting
 4 plan, too, right now, is through all the different
 5 contractors we have, you know, who are we going to
 6 have to do this, what's the plan, you know, where are
 7 we going to go from there. Those are, again, are
 8 going to be going along right alongside with all the
 9 pilot tests and everything kind of going at once.
 10 ROBLES: But what really was exciting to me was
 11 the fact that NASA headquarters said "We want to do
 12 this." So I mean, there's no issue. We want to get
 13 this done and they want it as fast as possible. And I
 14 said, "Well, you know there's some issues that we have
 15 to address and some other concerns."
 16 So that's why I want you to think about it
 17 and hopefully give us some input. When we develop the
 18 proposal at least we have addressed the majority of
 19 your issues and then we can work the finer details out
 20 when you get the proposal to review.
 21 One of the questions that we ask ourselves,
 22 what is the future of this well? That's one of the
 23 things I have to go back and ask, what do we want to
 24 do with this well in the future?
 25 And the issue of 97-005 came in question.

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1 Maybe we need to do something. What are we going to
 2 do in the future with the disposition of this well
 3 once we make sure it's completed or reaches a level.
 4 So that was a discussion we had. All those are on the
 5 table. So we have to look at that.
 6 RIPPERDA: Remediation won't be completed for --
 7 ROBLES: Oh, I know.
 8 RIPPERDA: -- decades.
 9 ROBLES: I know.
 10 RIPPERDA: That's a property issue down there.
 11 HOWELL: It's a decommission issue.
 12 ZUROMSKI: That's where we are right now. I don't
 13 know if you guys have any questions or comments.
 14 ROBLES: Any questions or comments?
 15 RIPPERDA: I guess I'm glad to see that NASA has
 16 finally agreed to spend a little money on doing
 17 something. So that's a good thing.
 18 You know, if you're going to do this as a
 19 removal action I'll say I don't think I have a problem
 20 with that. But you know, if when we go through the
 21 feasibility study and remedial design for the
 22 site-wide, if it turns out that injection of water
 23 somewhere else is better for the entire remedial
 24 design just because you built these spreading basins,
 25 you know, doesn't mean that we won't make you inject

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1 water.
 2 HOWELL: We understand it's interim action.
 3 (INAUDIBLE) It's not (INAUDIBLE) prejudicing
 4 (INAUDIBLE) able to process.
 5 RIPPERDA: Okay.
 6 ZUROMSKI: And we're going to explore -- you know,
 7 we talked about also with the folks from Pasadena,
 8 when we put these wells here is it going to create a
 9 new type of hydrogeological barrier, or are we going
 10 to have to reinject them up here, you know, what kind
 11 of impacts are we going to have in the other spreading
 12 basins. Those are things we're going to have to
 13 discuss as well. And that will be all part of the
 14 design.
 15 ROBLES: It was clear to me that this discussion
 16 with the City of Pasadena opened their eyes to a lot
 17 of issues that they didn't realize themselves. And
 18 they had concerns with the impacts of so much water
 19 going in there, and what is the Raymond Basin going to
 20 do? So they're having to mull over this as well mso
 21 that is a concern all the way around, what is the
 22 optimum place to put it, and so on.
 23 That's one of the things we want to ask you.
 24 Reinjection, spreading, what are some of the issues
 25 that you guys have with that, what are some of the

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1 concerns, what things you would like to see, what
 2 things you don't like to see. If we can get an
 3 indication, you know, at least it will help us focus
 4 on where we need to go to get the proposal at least
 5 looking possible.
 6 RIPPERDA: Uh-huh. Just some purely regulatory
 7 stuff. This is off site, so your CERCLA waiver
 8 permits -- depending on whether you say, well, it's
 9 the plume and is that on site or off site. But you
 10 better at least be starting the process of, you know,
 11 Water Board, MTDS, discharge permits and all of that
 12 and any other permitting requirements there might be,
 13 because the CERCLA waiver is only for on-site
 14 treatment and discharge.
 15 ZUROMSKI: Do you have anything?
 16 CARLOS: I was going to say the same.
 17 ZUROMSKI: Okay. Those are things that once we
 18 get our contractor on board and we start working on
 19 different designs we'll have to start -- we'll have to
 20 start working on the permitting issue.
 21 CARLOS: With the STDS I don't think (INAUDIBLE).
 22 ZUROMSKI: That would be great. That would be
 23 wonderful.
 24 CARLOS: It may be a year before (INAUDIBLE)
 25 permit application.

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1 ZUROMSKI: And I know that we -- also some of the
2 results from the Tiger Team showed that we needed to
3 look at the time that it seemed the impacts to Well
4 52, which is the next -- pretty much the next well
5 down the line from the Arroyo Well that's going to be
6 impacted, what kind of time frame do we have to do
7 this remediation. Is Well 52 in danger of being shut
8 down?

9 And I know Mark Cutler and Mark Losi did
10 some preliminary modeling for -- fate and transport
11 modeling. And I don't remember exactly what it was,
12 but it was about 30 months from the beginning of this
13 year was the -- was the general kind of rough
14 consensus of how long before Well 52 would be
15 impacted.

16 CUTLER: Right. We had done those two methods.
17 That was based on current rates of perchlorate
18 increasing in Well 52. We did calculations on how
19 high it can get in Well 52 before they couldn't blend
20 it down. And we came up with about 45 parts per
21 billion. And it looked like from January of this year
22 it would take about 30 months at the current rate.

23 ZUROMSKI: Right. However.

24 CUTLER: Right. However, it's a complicated
25 geology out there. The bulk of the plume was what

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1 we're calling the second layer at the Arroyo Well.
2 The pump in Well 52 appears to be in the third layer,
3 so there appear to be some lower permeability layers
4 protecting Well 52. And there's a chance -- no one
5 knows, there's no way we can actually really prove
6 this or show this, but levels may increase rapidly all
7 of a sudden in Well 52 if there's a breakthrough
8 through the zone of impermeability and the plume just
9 tears right towards it. So we need to be cautious of
10 that time frame, that it's --

11 ZUROMSKI: That's why we're using that as a very,
12 very --

13 CUTLER: Right.

14 ZUROMSKI: -- I guess liberal estimate.

15 CUTLER: Right. Right.

16 ZUROMSKI: Conservative. Conservative-wide.
17 We're probably (UNINTELLIGIBLE) like a year.

18 CUTLER: If everything stays the way it is now,
19 right. But things change.

20 ZUROMSKI: So that's why we're -- we're interested
21 in doing our work, in starting our work now.

22 That's all I think I have, at least on item
23 2.

24 ROBLES: Any comments? Any other --

25 GEBERT: Nothing more to add.

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1 ROBLES: Our contractor will be getting with you
2 guys on permitting issues and everything else. We'll
3 probably end up coordinating meetings with each of you
4 guys at your area to introduce, and in particular with
5 the permitting folks so that we can work with them.

6 Okay. Any questions? Comments?

7 Okay. Item 3. We know that these are going
8 to be schedule impacts for the descoping and transfer.
9 We are requesting an extension. A formal extension
10 will be coming by 19th June. That's when we have the
11 Navy to give us a schedule list and other information
12 on what needs to be done. At that time we hope that
13 we can get something to you.

14 RIPPERDA: So this is an extension for pretty much
15 everything in the FFA?

16 ZUROMSKI: Right. We will come up with a
17 Microsoft project schedule, as Chuck has, and we will
18 modify it to fit all these new things that are
19 happening.

20 RIPPERDA: OU-1, OU-2 --

21 ZUROMSKI: Yes.

22 RIPPERDA: -- FS, ROD, remedial design, all that.

23 ROBLES: Right.

24 GEBERT: So are you saying that nothing's going to
25 happen now until we have the new schedule?

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1 ZUROMSKI: Well, we're still working on these
2 other things, but we're also -- see, the folks out
3 of -- in San Diego are working on the schedule.
4 They've been working on it for me for a while and I'm
5 trying to get -- I've been trying to get Chuck's old
6 schedule so they can input it as well. And they're
7 also doing some cost estimating for me down there as
8 well. So we have been given till 12 June by NASA
9 headquarters to produce a budget for them to comment
10 on, and a schedule for them to comment on. So I
11 wanted to give it at least another week to get their
12 comments before we give you a formal request because,
13 you know, if they have major comments or major
14 heartburn we're going to have to take those into
15 account too.

16 GEBERT: Okay. So, for example, the final FS was
17 due, or is going to be due to us like early June.

18 ZUROMSKI: Uh-huh.

19 GEBERT: Is that now --

20 ROBLES: Right. That's going to have to be
21 extended.

22 GEBERT: That's not going to happen?

23 ROBLES: Right.

24 RIPPERDA: Is that more from technical
25 perspectives of --

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1 GEBERT: Why is that?
 2 ROBLES: No. It's because of the funding issue
 3 now we're going to let JPL continue with the
 4 groundwater monitoring, soil vapor monitoring, the
 5 groundwater annual report, sampling. But all of the
 6 documentation is being transferred over to the Navy.
 7 RIPPERDA: Even the stuff that --
 8 ROBLES: Noncontroversial. That's true. That's
 9 the direction that we got from NASA headquarters.
 10 RIPPERDA: So does this mean a few weeks'
 11 extension beyond what we already granted, or does it
 12 mean that Foster Wheeler gives them their desks and
 13 the Navy --
 14 ROBLES: We're not sure.
 15 RIPPERDA: -- has the contractor and --
 16 ROBLES: That's the thing. We're not sure.
 17 ZUROMSKI: And we also kind of want to discuss --
 18 I mean I don't know if this is a good time to discuss
 19 some of your concerns and your comments about delaying
 20 the FS itself for another year. Remember you talked
 21 about that in your comments.
 22 RIPPERDA: Well, I said that was, you know,
 23 something worth considering --
 24 ZUROMSKI: Right.
 25 RIPPERDA: -- if you just didn't have enough

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1 information to have any clue what you were doing.
 2 You know, I'd rather not.
 3 ZUROMSKI: Okay. Well, that's fine, too.
 4 GEBERT: Especially OU-2.
 5 ZUROMSKI: Right.
 6 RIPPERDA: Yeah. That's like (UNINTELLIGIBLE).
 7 ZUROMSKI: Well, there's a couple -- I think a
 8 couple of new things, especially some of the
 9 continuing JPL activities we're still discussing with
 10 NASA headquarters, what we're going to actually let
 11 them continue and finish out and what we're going to
 12 take over.
 13 ROBLES: Formally --
 14 ZUROMSKI: Some of the logical things like --
 15 especially like groundwater monitoring, soil vapor
 16 monitoring, we're going to kind of let them finish
 17 out, I think we agreed on, but some of the other
 18 things we haven't quite agreed on.
 19 ROBLES: I formally requested that NASA consider
 20 letting the OU-2 documentation continue with Foster
 21 Wheeler and JPL because that's the noncontroversial
 22 portion.
 23 ZUROMSKI: Right.
 24 ROBLES: And I'm waiting for NASA headquarters
 25 director -- she's at Plum Brook right now in Cleveland

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1 decommissioning a nuclear reactor. So she's kind of
 2 disposed.
 3 BURIL: Pete, would you do me a favor and make a
 4 comment or two with regard to the technical value and
 5 the management of the program of Cal Tech and whether
 6 that was a factor in the decision to transfer this?
 7 ROBLES: The factor was the conflict of interest
 8 issue and the litigation cases on this, which I can't
 9 comment on.
 10 BURIL: No. That's fine.
 11 HOWELL: Absolutely. We want everyone to
 12 understand NASA has not made the decision as a result
 13 of its displeasure with the technical performance of
 14 Chuck's team nor Cal Tech.
 15 It's a whole -- it's purely an issue of
 16 trying to avoid potential conflict of interest issues
 17 and not having to wrestle with those issues. When you
 18 start making decisions and getting into the actual
 19 remedial stages and having issues like that creep up
 20 along the side it just becomes a distraction on your
 21 overall program. And you may be in the midst of what
 22 appears to be the most technically competent approach
 23 and everyone agrees that this is the right thing to
 24 do, and then you start having all these other issues
 25 crop up and we have to pull back, put the brakes on,

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1 do other things, stop to try to deal with all these
 2 other issues.
 3 It's just such a disruption to the overall
 4 program that I think that headquarters decided let's
 5 try to deal with that issue now. If that means that
 6 we have to slow down a little bit to make sure that we
 7 get everything in place, we hope that our regulators
 8 will understand that we're trying to place -- put all
 9 that in there so that once the remedial program gets
 10 going, it's going. You know, we want to get this
 11 started and over with and not have it, you know, start
 12 and stop because we're having to deal with all of the
 13 collateral issues.
 14 RIPPERDA: Right. I know the government and the
 15 military, DoD, their contracts are all set up so
 16 they're forced to switch contractors between the
 17 investigative side and the remedial action side.
 18 ROBLES: Right.
 19 RIPPERDA: They're not allowed to use the same
 20 contractor for both, and I guess Cal Tech was the
 21 contractor.
 22 HOWELL: That's right.
 23 ZUROMSKI: Essentially.
 24 RIPPERDA: I always think of Chuck as like the RPM
 25 --

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1 HOWELL: Investigators. They've done the
 2 investigation stage and --
 3 (OVERTALK.)
 4 RIPPERDA: But I guess I'd still second what
 5 Richard said, that the OU-2 FS is still the
 6 investigation side and it's like it's pretty much
 7 done.
 8 ROBLES: Right.
 9 RIPPERDA: Let's not that -- let that get held up
 10 too much by --
 11 GEBERT: Right.
 12 ROBLES: We need that comment so that when we talk
 13 to our NASA --
 14 BURIL: I'll share with you, Peter, that the
 15 document is to be delivered to my office for internal
 16 review tomorrow and will be ready by June 9th for
 17 delivery if you so desire.
 18 ROBLES: That's a good point. Then we'll
 19 talk --
 20 GEBERT: I guess it was mostly my problem, but I
 21 told my boss at the meeting yesterday that the OU-2 FS
 22 is going to be approved before July 1st. I said it's
 23 for sure.
 24 ROBLES: Okay. So that's a good --
 25 HOWELL: Fortuitous timing.

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1 (OVERTALK.)
 2 GEBERT: Now if I have to go back to her and say
 3 no --
 4 ROBLES: No. We don't want you to look with egg
 5 on your face. We will contact our people and we'll
 6 make sure. Because one of the things I had put in
 7 there as an e-mail to my superior back at NASA
 8 headquarters, we felt that, and I have requested to
 9 consider the noncontroversial portion of this to
 10 continue and let it be finalized by JPL.
 11 RIPPERDA: And similar to Richard, I've been
 12 getting a little heat from my management, because we
 13 have to track everything in this national database
 14 called WASTELAN.
 15 BURIL: WASTELAN.
 16 RIPPERDA: Yeah. It replaced CERCLIS, if that
 17 means anything to you.
 18 ROBLES: Oh, no. The bean counting.
 19 HOWELL: It's called WASTELAN?
 20 RIPPERDA: WASTELAN.
 21 HOWELL: I hadn't heard that.
 22 RIPPERDA: It's all our reports to Congress that
 23 you have in this national database. And we've been
 24 letting all the FFA dates -- seems like the FFA is
 25 worthless almost. We've been letting the dates slip

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1 and slip and slip. And I've been getting heat, like
 2 you, to get them on an enforceable schedule, like
 3 where is that OU-2, the FS that was --
 4 ROBLES: Good point, then. So we need to -- we
 5 need to address your concern and take them forward to
 6 NASA headquarters to push this. So that's a good
 7 point.
 8 GEBERT: At least for OU-2. OU-3, 1/3 understand
 9 (UNINTELLIGIBLE).
 10 ROBLES: Okay. Good. That's what I need. I need
 11 that input from you guys. Okay.
 12 ZUROMSKI: Then I guess under item 3.b., at least
 13 from what we foresee right now, we're foreseeing the
 14 full transfer by fiscal year for the entire program.
 15 So there is some of this phasing of some of this
 16 noncontroversial work through and from Foster Wheeler
 17 to the Navy. It's not going to be an all-at-once kind
 18 of thing. Again, that's part of the phasing plan that
 19 they're going to have to develop, something that we
 20 haven't really discussed at all yet, so . . .
 21 RIPPERDA: So back to OU-1/3 for a minute and like
 22 timing of that FS. It seems like the first FS was
 23 very constrained by NASA, you, by Peter, whatever --
 24 ROBLES: Uh-huh.
 25 RIPPERDA: -- tying, kind of, Chuck's and Foster

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1 Wheeler's hands with the amount of things they could
 2 look at, the amount of money that they could save.
 3 ROBLES: Uh-huh.
 4 RIPPERDA: It seemed like it was -- it was a
 5 document that had problems personally from a lot of
 6 outside pressures.
 7 BURIL: Thank you for recognizing that situation.
 8 RIPPERDA: So if NAVFAC being, you know, like part
 9 of the federal government, it's got a little more
 10 muscle with NASA. If it means taking a few more
 11 months to like look at it with a broader perspective,
 12 you know, I would be all for that.
 13 ZUROMSKI: Would that -- do you think that
 14 would -- what about the pilot test results? Would
 15 that be worth waiting for, or should we press along
 16 without that? Because that would be, you know, at
 17 least -- that would be about -- that would take us
 18 into October before we'd have the results and then
 19 another month to finalize everything with that data,
 20 at least.
 21 RIPPERDA: Once you have at least an idea that,
 22 yeah, these things will work --
 23 ZUROMSKI: Uh-huh.
 24 RIPPERDA: -- and they're -- you know, so -- it
 25 won't take that long to get back enough information to

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1 know that, you know, what your contractor, Enron or
 2 whoever it is, is saying what they can perform, it's
 3 like once you know that it will perform --
 4 ZUROMSKI: Right.
 5 RIPPERDA: -- you can plug that into the FS.
 6 ZUROMSKI: Okay.
 7 RIPPERDA: Some of the other things in the FS were
 8 just, you know, the big picture, you know, looking at
 9 the Arroyo Well --
 10 ZUROMSKI: Uh-huh.
 11 RIPPERDA: -- looking at on-site treatment,
 12 looking at where to reinject, what to do with water,
 13 you know, looking at your various options --
 14 ZUROMSKI: Right.
 15 RIPPERDA: -- and focusing those better and not
 16 being constrained, like all work has to be done on
 17 site.
 18 ZUROMSKI: Right.
 19 RIPPERDA: Some of those --
 20 HOWELL: I think that the Navy will be making
 21 recommendations to us and we'll consider everything.
 22 I can't say much more than that because I don't know
 23 that much about what headquarters is thinking.
 24 RIPPERDA: Uh-huh.
 25 HOWELL: But I do know that -- that they will take

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1 very seriously all the recommendations, and if that
 2 includes a broader view of things, that certainly will
 3 be considered. So I can at least give you some
 4 feeling that we're not going to put the Navy off when
 5 they make recommendations to us.
 6 Now, if you had been in the Air Force and the
 7 Army we never would (UNINTELLIGIBLE).
 8 ROBLES: Okay. Any other comments on anything in
 9 item 3?
 10 Okay. Number 4 is the Continuing JPL
 11 Activities. As I said before, will be the groundwater
 12 monitoring and soil vapor these next two quarters and
 13 the continuation of that.
 14 We're also looking at continuing, you know,
 15 the agreements with Lincoln Avenue. We have signed
 16 the Lincoln Avenue agreement and the City of Pasadena.
 17 That will continue on. It might be in the future
 18 looking at maybe -- looking at those agreements from a
 19 NASA standpoint to do some expansion on them. That
 20 will first be coordinated through you guys. That's
 21 first from that standpoint. Right now we do have two
 22 agreements with City of Pasadena and Lincoln Avenue.
 23 We're going on with that.
 24 BURIL: Pete, what about the State oversight
 25 reimbursement?

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1 ROBLES: We're looking at that to see if the Navy
 2 can directly pay that through their auspices as well
 3 as, also, other items and issues, because I believe
 4 that the Navy does have a MOU with the State of
 5 California so that they could pay the vouchers for
 6 that. We're going to make sure that we can do that.
 7 Otherwise, we will continue with the status quo --
 8 we'll have to work out in the descopeing an arrangement
 9 so that we can continue paying those though JPL if we
 10 can't do it through the Navy.
 11 Any questions? Any comments?
 12 RIPPERDA: Back to perchlorate and the
 13 downgradient wells from the Arroyo. If they get
 14 impacted by perchlorate above levels they can mix,
 15 what are your contingency plans? Does the City of
 16 Pasadena have adequate other supply? Would they be
 17 making you provide supply?
 18 ROBLES: I have asked that question. They haven't
 19 been able to formulate anything for me. Because I
 20 have talked off line with Brad Bowman. They're trying
 21 to formulate some kind of strategy for that. I've
 22 asked them. Because I've been asked by NASA
 23 headquarters what would happen. And Brad Bowman said,
 24 "Gee, I never thought about it." So, you know, they
 25 know they have a concern, but they haven't been able

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1 to formulate on what they want, because we asked them,
 2 "What would you do if that well went off?"
 3 "Oh, we're not sure. We're not sure what we
 4 would do."
 5 "What were you going to come to us for?"
 6 "Well, we're not sure what we would ask you
 7 for as yet. We'll have to formulate that."
 8 RIPPERDA: I guess I reiterate this every single
 9 meeting --
 10 ROBLES: Right.
 11 RIPPERDA: -- but it is your responsibility if
 12 they're being a little dim about realizing what they
 13 need to be thinking. It's -- you know, it's your
 14 fault that their well might go off line. So I should
 15 call Brad and prod him to be aware that --
 16 ROBLES: True.
 17 RIPPERDA: -- he can come after you.
 18 ROBLES: I need a strategy so I can take up to
 19 headquarters so we'd be prepared to address it so that
 20 we have a contingency plan together. Yes, I agree.
 21 RIPPERDA: So, you know, I still ask you to like
 22 start the whole DHS permit package that any purveyor
 23 might need in case you have to put perchlorate
 24 treatment on a wellhead. Don't wait until the well's
 25 turned off to start what might be a one- to two-year

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1 process.
 2 ROBLES: Right.
 3 RIPPERDA: Start that now.
 4 HOWELL: Yeah. And I don't know too much about
 5 this issue yet, but what's been your experience of
 6 sitting down and helping mediate when we have these
 7 type of discussions?
 8 I know my experience has been with Region 8
 9 and they would occasionally help. I use the word
 10 "mediate" as far as sitting with people and saying,
 11 "Hey, here's what's going on." It's in everyone's
 12 best interest if you sit and talk together. And, you
 13 know, obviously the government is on the hook for
 14 this. But they need your assistance. What do you
 15 need from, you know, from EPA to make them feel better
 16 that they're going to -- they need to work with you.
 17 RIPPERDA: Yeah. I think that all three of us
 18 regulators are more than happy --
 19 HOWELL: Okay. So you're comfortable in sitting
 20 down --
 21 RIPPERDA: -- to work with DHS and City of
 22 Pasadena.
 23 GEBERT: By all means. Anything we can do to get
 24 through, oil the wheels.
 25 ROBLES: Okay.

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1 HOWELL: We all have the same interest and do a
 2 little bit of, you know, interspace collaboration.
 3 ROBLES: You know it might be a good idea is
 4 to -- would you be adverse if we set up a meeting with
 5 Brad Bowman and all of us just to sit down and say,
 6 "Hey, look. We have these concerns. City of
 7 Pasadena, we need for you to submit to us a strategy
 8 on what would you need to be done if your other wells
 9 went off line?" so that I can take that up to my boss
 10 and say, "These are the issues and these are the
 11 things that we may need to do --"
 12 RIPPERDA: Yeah. I think --
 13 ROBLES: -- so therefore, we can have a
 14 contingency plan together.
 15 RIPPERDA: Right. I'm all for that. And it might
 16 help him to know that, you know, he has the State of
 17 California and --
 18 ROBLES: Right
 19 RIPPERDA: -- EPA kind of backing him up.
 20 ROBLES: Right. And that we're willing to do
 21 something. I just need a strategy to take up to NASA
 22 headquarters to say, "This is what they want done.
 23 Can we do it? Or how do we make this happen, or what
 24 are the constraints or what alternatives can we accept
 25 and what we can't," and then bring that back and say,

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1 "Okay. These are the things we can do. These are
 2 things we cannot do," you know.
 3 Therefore, then we can sit down and work
 4 that out, because it would be nice if we can all have
 5 that agreed to ahead of time so that there is no
 6 delay. For example, funding issues, transfer of
 7 funds, permitting issues and so on that way. I agree.
 8 And if it means, you know, your concern on
 9 97-005, yes, we need to do that. That's one of the
 10 things I've tasked Richard on. That's one of his
 11 primary issues, is get those documents together, get
 12 that processing going as fast as possible.
 13 RIPPERDA: Any meeting with Brad or anything else
 14 having to do with local water, you know,
 15 (UNINTELLIGIBLE) Richard can make it.
 16 ROBLES: Yes.
 17 RIPPERDA: Because it's not just City of Pasadena.
 18 ROBLES: No. It's Raymond Basin as well.
 19 RIPPERDA: It's Raymond Basin.
 20 ROBLES: Right. I've asked Brad not only consider
 21 what the City of Pasadena needs, but in the context of
 22 the Raymond Basin, would they also have to -- There
 23 are things that have to be coordinated through the
 24 Raymond Basin as well. So yes.
 25 RIPPERDA: Any talk of like extra pumping in the

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1 spreading basins?
 2 ROBLES: Yes.
 3 RIPPERDA: That makes me just a little nervous.
 4 Is there a water balance?
 5 ROBLES: Right.
 6 RIPPERDA: What are --
 7 ROBLES: And one of the things in the meeting that
 8 we had with Brad is "Please take this back to the
 9 Raymond Basin and discuss what are some of the things
 10 that need to be done so we can make this happen."
 11 Okay.
 12 ZUROMSKI: I was wondering if Richard had heard
 13 anything about that from Brad or anything.
 14 ATWATER: I have not, but after the meeting I'll
 15 call Brad and he can get Ron on the line.
 16 ROBLES: We had a meeting to discuss, you know, we
 17 wanted to do something with the Arroyo Well, put our
 18 own well next to it and do some pumping.
 19 ATWATER: Oh.
 20 ROBLES: And then to spread or inject, and what
 21 was his concerns, what would be needed to be done,
 22 what hoops would be needed. He was very enthusiastic.
 23 But he's taking that back to the Hahamongna and his
 24 Park Services folks.
 25 ATWATER: When did you see Brad?

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1 ROBLES: Two weeks ago.
 2 ZUROMSKI: Two weeks ago.
 3 ATWATER: Yeah. I saw him about a week or so ago,
 4 but --
 5 ZUROMSKI: Nothing.
 6 ATWATER: -- he didn't bring it up. It was in the
 7 context of another meeting.
 8 ROBLES: Okay.
 9 ATWATER: I'll check with him. I'm sure, as Mark
 10 said, I'm mean, I think he'd be happy to arrange a
 11 meeting and --
 12 ZUROMSKI: Great.
 13 ATWATER: -- sit in with Pasadena and get, you
 14 know, Brad's boss and do all that sort of thing and
 15 figure out --
 16 You want them to prepare a contingency plan,
 17 I guess. The only thing I think is to be reasonable
 18 is you're asking them to kind of do all -- you know, I
 19 think it's putting the burden on Brad to do all that.
 20 It needs to be kind of jointly, let's come up with
 21 some strategies that make sense.
 22 RIPPERDA: That's why I think a meeting is
 23 actually great. Because like I'm not asking for them
 24 -- that's why I keep saying it's actually --
 25 ROBLES: Right.

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1 RIPPERDA: It's NASA's problem and Brad just needs
 2 to kind of define how big the problem is or what
 3 options are. You know, it's not his job to prepare a
 4 contingency plan.
 5 ATWATER: You ask him an open-ended question; what
 6 are you going to do if his well goes up and he can't
 7 blend anymore? You know, we've chatted about that for
 8 the last year.
 9 ROBLES: Well, you know, like I was looking for is
 10 not the details in a really -- you know, I don't want
 11 to give the inference that we want the City of
 12 Pasadena to develop all in a vacuum.
 13 For example, if he says, "We'll purchase
 14 water." Okay. Then if I know that, then I know I'm
 15 going to ask "How much water you need? How much water
 16 you going to purchase?" You know, "What are the
 17 issues?" Then I can take that back to my HQ and say
 18 "Hey, look. They're going to have to buy water."
 19 ATWATER: As long as we aren't in a drought, the
 20 simple calculation, he can always buy MWD water,
 21 imported water. Obviously, you know, Pasadena, they
 22 would love to have the Arroyo Well and Well 52 have
 23 wellhead treatment so they can stay on the Basin
 24 economically, and from a prudent kind of water supply.
 25 We talked about that for two or three years.

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1 ROBLES: Right.
 2 ATWATER: Clearly we would prefer to have a
 3 contingency plan to have wellhead treatment in a
 4 timely way. You see that with your Lincoln, you know,
 5 agreement. I mean, they very strongly, and you've
 6 worked it out with them, is they want to stay on their
 7 local supply.
 8 ROBLES: And those are the things I need to take
 9 back and tell -- you know, NASA will say we can do
 10 this, but we can't do that, and then bring it back to
 11 you guys and say, "This is what NASA --" and then we
 12 hash it out.
 13 And that ultimately has to be negotiated.
 14 ATWATER: Sure.
 15 ROBLES: We're going to have to -- I think we're
 16 going to have to negotiate a contingency plan. I
 17 believe that that will address the regulators' concern
 18 about the off-site impacts.
 19 ATWATER: Absolutely. You can always bring up
 20 97005, clearly, as we have in the past. Then we -- if
 21 you're going to do wellhead treatment, then obviously
 22 you have to get DHS involved in that discussion.
 23 Because when you say "a contingency plan," what are
 24 they going to require, allow that to be produced and
 25 either blended. And, you know, Vera, at that meeting

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1 we had, what, six months or so ago, where DHS
 2 explained, you know, they're all right today with Well
 3 52. But if they go off, putting it back on line
 4 requires a different level of, you know, operational
 5 reliability --
 6 ROBLES: Right.
 7 ATWATER: -- in the blending plan and all that.
 8 But, you know, Brad or Pasadena on its own can't
 9 articulate that contingency plan. They need DHS
 10 involved in that discussion.
 11 ROBLES: Okay. We may need a meeting with all the
 12 players that need to be -- okay.
 13 Any other comments?
 14 Any questions?
 15 Any issues?
 16 I know our biggest -- on Number 5, our
 17 biggest action plan is on the 19th, get you something
 18 for the schedule, what we need to do. And
 19 my action also is to push NASA headquarters to allow
 20 the OU-2 documents to be completed by JPL. So those
 21 are my two big actions.
 22 CARLOS: When is our due date, again?
 23 HOWELL: June 29th?
 24 ROBLES: June 9th.
 25 GEBERT: June 9th.

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1 ZUROMSKI: You guys are on schedule for that?
 2 ROBLES: Yup, they are. They are.
 3 ZUROMSKI: We want to do -- we're going to do
 4 these -- you know, this is part of all the -- be part
 5 of the descoping plan. It's going to be things that
 6 make sense in how we transfer, and something like that
 7 would seem -- if it's only a couple weeks away, it
 8 wouldn't make too much sense to worry about that.
 9 RIPPERDA: I guess you can tell whoever it is
 10 you're reporting to that the regulators would be very
 11 unhappy if the document that's ready to go --
 12 ROBLES: I need those. I need those words. We
 13 want to make regulators happy with WASTELAN SA's
 14 software.
 15 What do you call it when I get on your bad
 16 list?
 17 RIPPERDA: I won't tell you what I've already
 18 called you.
 19 ROBLES: Well, anything else that you looked at?
 20 One of the things that I want do is allay
 21 your fears as regulators, because NAVFAC, we have the
 22 ability to contract with Foster Wheeler. That's one
 23 area that we looked at. That's one of the reasons
 24 we're working with the Navy's Facilities Engineering
 25 Service Center. They have access to all contracts at

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1 all divisions within the Navy. They can go to Pac
 2 Div., the Southwest Div. in San Diego, to Norfolk.
 3 Anywhere. So there's usually somewhere somebody.
 4 ZUROMSKI: Actually meeting in the next couple
 5 days we're going to have a -- we're going to do some
 6 other kind of contractual interviewing and things like
 7 that to figure out who we're going to use, who's going
 8 to be the best to work side by side with of all the
 9 different contractors. Basically we have a list of
 10 all the contractors we have, who would be the best for
 11 what task and we foresee using a couple of different
 12 contractors, maybe not just one, kind of as you said,
 13 the Navy works -- we usually have a RAC contractor and
 14 a CLEAN contractor. And they separate at the point of
 15 the -- the end of the FS. So those are the kind of
 16 things we're working on as well.
 17 ROBLES: Okay. Any comments? Any issues?
 18 Does this mean we're going to break our
 19 meeting time? Boy, this is the fastest we've had.
 20 It's a short meeting.
 21 Is everybody just in shock?
 22 I am. These last two weeks have been
 23 murder.
 24 ZUROMSKI: We just got that fax about, what,
 25 quarter past 8:00 this morning it came in. We haven't

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1 got the official copy yet, but that letter just came
 2 in this morning.
 3 RIPPERDA: I guess if we're not talking about
 4 comments, like --
 5 ROBLES: So do you want to talk about comments
 6 or --
 7 RIPPERDA: Maybe not today. Since you guys don't
 8 know what's happening with OU-1 and 3 and all of that,
 9 it's like -- I really do want to go through everything
 10 having to do with the OU-1 FS.
 11 (Atwater departed.)
 12 RIPPERDA: You know, different options, whatever
 13 the Tig -- you know, like once you can release the
 14 Tiger Team document to us --
 15 ROBLES: Yes.
 16 RIPPERDA: -- and, you know, scope really what
 17 some high quality options are --
 18 ROBLES: All right.
 19 RIPPERDA: -- that might be -- you're getting us a
 20 schedule by June 19. By then you'll somewhat know how
 21 you're going to be handling contracts and other
 22 things, so . . .
 23 ZUROMSKI: Maybe we should have another -- a
 24 teleconference at that time as well.
 25 RIPPERDA: Well, to really discuss OU-1 --

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1 ROBLES: We need to face to face.
 2 RIPPERDA: -- that would be like the next RPM.
 3 ROBLES: We may have to -- we may have to schedule
 4 a -- have a meeting face to face, because once we get
 5 -- know that, I think we need to just focus on OU-1
 6 and 3 and comments on that.
 7 ZUROMSKI: Maybe we should wait for the schedule
 8 to come out on the 19th and maybe have a
 9 teleconference to discuss some of the preliminary
 10 issues of that, and then at that time schedule a
 11 meeting for maybe within the next two weeks after that
 12 for a face to face.
 13 RIPPERDA: Yeah.
 14 ZUROMSKI: So probably looking at the beginning of
 15 July or so. I don't know. Does anybody have
 16 any stop -- I know it's -- 4th of July week is that
 17 first week of July. Does anybody have any -- that's a
 18 Tuesday. So I don't know if we want to wait till
 19 that, tentatively wait till that second week of July?
 20 GEBERT: I'll be on vacation the last three weeks
 21 of July.
 22 ZUROMSKI: Okay. So maybe that second week is
 23 booked up.
 24 RIPPERDA: So maybe the 6th would be a good date.
 25 GEBERT: I won't be here. My last day is the 5th.

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1 RIPPERDA: Maybe the 5th.
 2 ZUROMSKI: So the 5th of July.
 3 GEBERT: The 5th of July is fine.
 4 ZUROMSKI: The day after. Okay. And everybody
 5 will be relaxed.
 6 CARLOS: Is that face to face?
 7 ZUROMSKI: Yeah. Tentatively let's try the 5th of
 8 July right now.
 9 RIPPERDA: And possibly meeting with Brad Bowman
 10 sometime before that.
 11 ROBLES: Yes.
 12 ZUROMSKI: Sure.
 13 ROBLES: Yes.
 14 ZUROMSKI: Sure.
 15 ROBLES: As early as possible.
 16 ZUROMSKI: Well, if we meet with him in the next
 17 week or so we could always --
 18 ROBLES: I need to talk to him and schedule a
 19 meeting so that we can get all the players involved.
 20 ZUROMSKI: So that on that 5th of July meeting we
 21 would also -- we would also discuss those comments on
 22 the FS as well at that time. Or I guess that would be
 23 the -- okay.
 24 And we probably have -- hopefully,
 25 we're -- I think we're hoping to have contractual

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1 decision made by -- before the end of July. Because
 2 it's going to take us a couple weeks to go through and
 3 look at the contractual mechanisms and then to
 4 actually get the contractor to do the scope and all
 5 because it's going to be a, you know, pretty large
 6 scope. It's going to take us a couple weeks to get
 7 them actually on board and negotiate a contract. So
 8 probably we -- we probably won't have a contract on
 9 board by the 5th of July, but we'll probably have an
 10 idea of which contractor we're going to use or which
 11 contractor we're going to use at that time.
 12 RIPPERDA: But it sounds like you've already
 13 decided not to use Foster Wheeler to do the
 14 draft-final FS or to redo the FS.
 15 ZUROMSKI: No. That decision hasn't been made
 16 yet.
 17 ROBLES: No. We haven't excluded them.
 18 ZUROMSKI: I'm looking -- that's something that
 19 we're going to have to discuss with NASA headquarters.
 20 I'm looking more at some of the hard contractor
 21 mechanisms for continuing the work that we're going to
 22 be taking from Cal Tech, aside from that FS, taking --
 23 doing the remedial, the removal actions and remedial
 24 operations and things like that, some of the other
 25 issues that we're going to do. That's what we're

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1 trying to decide, is do we want one contractor to do
 2 all that work for us or do we want one to do some of
 3 that administrative work that we're going to need to
 4 take away from Cal Tech, and then another one to do
 5 the remedial action, because we need some of the
 6 different functions. We may have more experts in one
 7 area than another.
 8 So those are the things that we're
 9 discussing internally right now.
 10 ROBLES: That's all I have. Any other?
 11 CARLOS: What's our next --
 12 ZUROMSKI: Do we want to discuss the schedule
 13 briefly after the 19th, like the 19th or 20th?
 14 GEBERT: I think it would be a good idea.
 15 ZUROMSKI: Okay. So do you want to do it on the
 16 19th or the day after? Because if we fax it to you
 17 that day would you want a day to --
 18 GEBERT: Maybe a day or two.
 19 ZUROMSKI: -- look at it. So maybe the 20th?
 20 ROBLES: 20.
 21 GEBERT: The 20th.
 22 ZUROMSKI: 20 June.
 23 GEBERT: What day of the week is that?
 24 ROBLES: Tuesday.
 25 GEBERT: That's fine.

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1 ZUROMSKI: Okay. Are we still going to -- are we
 2 going to meet here for that, for the face to face?
 3 ROBLES: Well, we'll discuss that in the telecon.
 4 I'm not adverse is -- if we needed to. If for some
 5 reason your schedules get screwed up for the 5th of
 6 July --
 7 ZUROMSKI: We can always travel, too.
 8 ROBLES: We got to have that meeting before you go
 9 on leave.
 10 ZUROMSKI: Right.
 11 ROBLES: We got to have that meeting.
 12 ZUROMSKI: It's got to be -- so whatever we have
 13 to do to get it done that day.
 14 ROBLES: If Mohammed can't come to the mountain,
 15 the mountain will come to Mohammed.
 16 RIPPERDA: And for the July 5th meeting, you know,
 17 I really don't want the FS to slide forever and I
 18 don't want it to slide for several months. But part
 19 of improving the FS would be having Foster Wheeler,
 20 since they are your current technical people, look at
 21 what they got now and look at possibly other things
 22 and come in -- you know, like don't come in with the
 23 FS and our comments on the FS, but read our comments,
 24 know what some of our concerns were in general and
 25 look at the options, the remedial options you

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1 currently have and what you think might be other good
 2 options both in terms of where to inject, where to
 3 pump and what to treat for.
 4 And come in with, you know, just a list of
 5 options and descriptions that we can all talk about,
 6 so that whoever does end up writing the FS, whether it
 7 be Foster Wheeler or somebody else, you know, we as
 8 both -- like the NASA and NAVFAC and Cal Tech, like
 9 technical people and the RPMs and stuff, like we all
 10 agree on what we think the viable options are.
 11 So you should come to that meeting with like
 12 a good list of technical options.
 13 ZUROMSKI: And maybe by then we'll be able to
 14 release the Tiger Team results as well and we can look
 15 at that all as kind of one big picture, but --
 16 DAVOL: When do you think you'll have the Tiger
 17 Team results?
 18 ZUROMSKI: Well, we have them.
 19 DAVOL: Oh, I know you have them. But I mean
 20 you'll be able to release them to us.
 21 ZUROMSKI: Your guess is as good as mine.
 22 HOWELL: I don't know for sure. Depends on
 23 headquarters, how fast they move.
 24 ZUROMSKI: Hopefully soon. They have looked at
 25 it, but --

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1 HOWELL: I can't imagine it going more than, you
 2 know, the middle of July.
 3 DAVOL: So we couldn't really have it before the
 4 5th of July, you don't think?
 5 HOWELL: It depends on the --
 6 ZUROMSKI: As soon as we can get it to you we will
 7 -- we will let you --
 8 HOWELL: Yeah. It depends.
 9 DAVOL: That would be helpful.
 10 ZUROMSKI: I mean I can take that copy and
 11 photocopy it off and send it to you as soon as they
 12 let me know. But the distribution is limited by NASA
 13 right now, so . . .
 14 ROBLES: Okay.
 15 RIPPERDA: And Phebe has, you know, her sample
 16 results, but I guess I don't really want to give them
 17 to you until we get yours, and then -- I just told
 18 Phebe yesterday, "Oh, yeah, you can give them away."
 19 But I guess until we get yours it will kind of screw
 20 up the --
 21 DAVOL: It will be a trade.
 22 RIPPERDA: -- the split sampling, like quality
 23 control --
 24 ROBLES: I'll show you mine if you show me yours.
 25 BURIL: That assumes I want to see yours.

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1 CUTLER: The report's being reviewed by JPL. As
 2 soon as we get word that --
 3 BURIL: It's the most recent one we got. Right?
 4 CUTLER: Yeah.
 5 RIPPERDA: I just wouldn't want the public to be
 6 able to say, "Oh, well, JPL got EPA's," and then, "Oh,
 7 look. They match."
 8 HOWELL: Of course they match.
 9 ROBLES: Okay.
 10 DAVOL: You think in a couple weeks at the latest?
 11 BURIL: Oh, yeah. That shouldn't be a problem.
 12 DAVOL: This is the one that you always send out
 13 so I'll just get it copied and then I'll --
 14 (UNINTELLIGIBLE).
 15 RIPPERDA: Yeah.
 16 BURIL: That sounds fine.
 17 ROBLES: Anybody else has any concerns, anything?
 18 Well, I think we're at adjournment. It's
 19 one of the fastest meetings we've ever had.
 20 (Discussion held outside the record.)
 21 RIPPERDA: Is the soils -- is the SVE still going
 22 on right now even as we speak?
 23 BURIL: The SVE has currently been shut down
 24 because we were picking up a lot of water. And I
 25 think we were going to restart it in the lower

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1 sections. Right?
 2 HOSANGADI: We started with B-C for about a week
 3 and we shut that down, again just to check where there
 4 are some problems. The blower, it's been pulling at a
 5 pretty high vacuum. We'll be starting back up next
 6 week, actually. We actually ran B and C for about 10
 7 days and we collected a sample and we are
 8 (UNINTELLIGIBLE) that as a on/off cycling. And we'll
 9 be starting it back up again now. But we are down at
 10 the low levels of -- anywhere from maybe a pound every
 11 three or four days. We are down to a pound every two
 12 or three months, probably, right now.
 13 RIPPERDA: You're just going to -- are you going
 14 to keep going because it's relatively low cost, or are
 15 you going to shut it off until --
 16 HOSANGADI: We'll see what the last sample that we
 17 collect in a couple days, what it looks like. But we
 18 are still seeing vacuum responses pretty long
 19 distances away, and we don't see the responses when
 20 the system is off, so --
 21 BURIL: As far as the continuation of the program,
 22 that is up to Peter and headquarters, so . . .
 23 RIPPERDA: Good answer, Chuck.
 24 BURIL: Let's just say it's the answer.
 25 ROBLES: Okay. No other comments, we're

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1 adjourned.

2 (At 10:49 a.m. the meeting adjourned.)

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MEETING ATTENDANCE RECORD



NASA/JPL SUPERFUND SITE RPM Meeting April 6, 2000

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